# INDEX


Page

ADAMS, HENRY C., Review of book by..... 253
AFRICA, Notes on..... 32
AGASSIZ, ALEXANDER, cited on West Indies ..... 244, 246
AGRICULTURE, Cuban..... 212
— in Alaska..... 178
— — the Philippines..... 265
— — — Yukon valley..... 189
AGROSTOLOGY, Work of division of..... 338
AGUILLE SANS NOM, Ascent of..... 448
AIRY, SIR GEORGE, Suggestion of, with regard to tides..... 472
ALASKA and its mineral resources; S. F. Emmons..... 139
—, Civil government of; George C. Perkins ..... 172
—, Climatic conditions of; A. W. Greely... 132
—, Coast line of..... 120
—, Geographic features of..... 105
—, Notes on the wild fowl and game animals of; E. W. Nelson ..... 121
—, Review of literature on..... 192
—, Rivers of..... 85
—, Routes to..... 113
—, Soil of..... 173
—, Some of the conditions and possibilities of agriculture in; Walter H. Evans..... 178
ALLEN, H. T., Explorations by..... 112
ALLEN, J. A., cited on Alaskan fauna ..... 128
ALVORD, H. E., Record of lecture by..... 414
AMDRUP, ——, Expedition to Greenland by. 448
AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE; John Hyde..... 412
AMERICAN REPUBLICS, Bureau of..... 338
AMERICA, Future of..... 385
ANDRÉE, An interesting rumor concerning; John Hyde..... 102
ANDREWS glacier, Naming of..... 10
APPALACHIAN province, Geological formation of..... 313
ARCHÆOLOGY of Greenland..... 8
ARCTIC exploration..... 1, 102
ARYANIZATION of Greenland..... 9
ATLANTIC coast tides; Mark S. W. Jefferson 497
— estuarine tides; Mark S. W. Jefferson.. 400
— plain, Geological formation of..... 313
—, What is the tide of the open; Mark S. W. Jefferson..... 465
ATMOSPHERE, Definition of..... 436

BABB, CYRUS C.; A relic of the Lewis and Clarke expedition..... 100
BAKER, MARCUS; The historical development of the National Capital..... 323
BARNARD, E. C., Surveyor of Bitter Root forest reserve ..... 389
BATANG-HARAU WATERFALLS, Description of 460
BAXTER, J. PHINNEY, Record of lecture by.. 104
BEAN, EDMUND, Explorations in Alaska by. 110
BEARDSLEY, L. A., Reference to work of..... 110
BECKER, G. F., Explorations in Alaska by. 141
BELL, ALEXANDER GRAHAM, cables for news of Andrée..... 102
—, Election of, as President of the National Geographic Society..... 28
—, Letter from Captain Sigsbee to..... 251
— on Japan; John Hyde..... 509
—, Memorial to President Hubbard by..... 40
—, Portrait of..... 73
BENJAMIN, MARCUS, Memorial to President Hubbard by..... 53

Page

BIOLOGICAL SURVEY, Work of..... 337
BIRDS of Alaska..... 121
— — West Indies..... 243
BITTER ROOT FOREST RESERVE; Richard U. Goode ..... 387
— — lake..... 395
— — mountains..... 391
BJÖRLING (MT), Naming of..... 11
BLODGETT, JAMES H., Review by..... 478
BOAS, FRANZ, Acknowledgment to book by ..... 83
BOTANY, Work of division of..... 338
BOYLE, DAVID, Acknowledgment to..... 83
BREWER, W. H., Record of lecture by..... 376
BRIDGE CREEK WATERFALLS, Description of. 424
BRUNN, DANIEL, Norse researches by..... 74
BUCKLE, H. T., cited on national development..... 339
BUREAU OF AMERICAN ETHNOLOGY..... 333
— — — —, Geographic work by; W J McGee..... 98
— — AMERICAN REPUBLICS..... 338
BY-LAWS, Amendments to..... 414

CAILLETET, LOUIS, Reference to work of.... 440
CAMPBELL, ROBERT, Reference to work of... 107
CANADA, Import trade of..... 448
—, People of..... 96
CARIBOU of Alaska..... 125
CARROLL GLACIER, Naming of..... 10
CENSUS (The), Work of..... 334
CENTRAL PLAIN, Geological formation of..... 312
CENTROSPHERE, Definition of..... 437
CHAMBERLIN (MT), Naming of..... 10
CHAPMAN, FRANK M.; The origin of West India bird life..... 243
CHAVES MAP, Discussion of ..... 372
CHELAN LAKE; Henry Gannett ..... 417
CHICKASAW NATION, Partition of..... 487
CHILKOOT PASS, Picture of ..... 106
CHURCHILL, WM., cited on Samoan myth... 12
CLEVELAND, PRESIDENT, establishes Bitter Root forest reserve..... 387
CLIMATE of Alaska..... 132
— — Cuba ..... 209
— — Philippines ..... 261
CLOUD scenery of the High Plains; Willard D. Johnson..... 493
COAL in Alaska ..... 170
COASTAL province of the District of Columbia, Features of..... 318
COAST AND GEODETIC SURVEY, Work of..... 335
COAST tides, Atlantic; Mark S. W. Jefferson. 497
COCOANUT (The) Samoan; A. W. Greely.... 12
COLUMBIA formation, Features of..... 321
COOK, J., cited on tides..... 468
CORDILLERAN province, Geological formation of..... 311
CORTHELL, E. L., Review of book by..... 72
CORY, C. B., Acknowledgment to..... 243
COVILLE, F. V., Record of lecture by..... 375
CUBA; Robert T. Hill... ..... 193
—, Birds of..... 245
—, Climate of..... 209
—, Commerce of..... 217
—, Trade of the United States with; John Hyde ..... 247
CURTIS bill for the protection of Indians... 487
CURTIS, W. E., Record of lecture by..... 414
CUSHING, FRANK, quoted on Zuñis..... 308

Page

Dabney bay, Naming of..... 10
Dall, William H.; A Yukon pioneer, Mike Lebarge..... 137
—, Explorations in Alaska by..... 137, 141
—, Naming of sheep after..... 128
—; The future of the Yukon gold fields... 117
—; The Metlakatla mission in danger..... 187
Darton, N. H., Record of lectures by... 71, 414
Davidson, George, Acknowledgment to..... 93
—, cited on Alaska..... 108
Davis, Arthur P., Record of lecture by... 32
Davis, Charles H., Acknowledgment to ... 31
Dawes Commission, Work of..... 485
Dawson, George M., cited on deposits..... 166
— — — Fort Selkirk..... 107
—, Explorations by..... 140
Dawson, Samuel E., Review of book by..... 71
Department of Agriculture, Work of..... 337
Dewar, James, Reference to work of..... 440
Dickey, W. A., cited on Alaskan gold..... 168
District of Columbia, Formations of..... 320
— — —, Geographic development of; W J McGee..... 317
Dodge, Richard E., Record of lecture by.. 104
Duff, A. W., cited on tides..... 505
Duncan, William, Reference to work of... 188
Dunham, S. C., Review of book by..... 253

Earth, Temperature of..... 443
Edmunds island, Naming of..... 10
Education, American Geographic; W J McGee..... 305
Eggleston, Edward, Record of lecture by.. 375
Election of members..... 32, 71, 376, 416, 520
Ellesmere land, Proposed exploration of.. 1
Ellicott, Major Andrew, surveyor of grant for National Capital..... 325
Elliot, D. G., Record of lecture by..... 70
Emmons, S. F.; Alaska and its mineral resources..... 139
Engineer corps, U. S. A..... 336
Entomology, Work of division of..... 338
Erlingsson, Thorsteinn, Norse researches by..... 74
Eskimo, Boats of..... 88
— (On) geographic names ending in miut; John Murdoch..... 190
—, Mythic notions of..... 129
— settlements..... 2
Ethnology, Work of the bureau of..... 98, 333
— of the Philippines..... 284
Evans, Walter H., Review of book by..... 192
—; Some of the conditions and possibilities of agriculture in Alaska..... 178
Everette, Willis E., Explorations by..... 112
Ewell, J. L., Record of lecture by..... 414

Fairchild, David G.; Sumatra's west coast..... 449
Fauna of Alaska..... 121
— — Greenland..... 5
— — the Philippines..... 260
— — West Indies..... 243
Ferrel, William, Author of "Treatise on Tides"..... 465
Filippi, Filippo de, quoted on the Prince Luigi Amadeo expedition..... 93
Fish Commission, Work of..... 338
Fitch, C. H.; The five civilized tribes and the survey of the Indian Territory..... 481
Fitzroy, Robert, cited on tides..... 474
Five civilized tribes, Government of..... 483
Flora of Alaska..... 180
— — Cuba..... 209
— — Greenland..... 4
— — the Philippines..... 264
Florida, Acquisition of..... 378
— coast line canal..... 242, 480
Floods, Mississippi..... 26

Page

Forests, Destruction of..... 387
— of State of Washington, Condition of... 410
Forest reserve, Bitter Root; Richard U. Goode..... 387
Forestry, Work of div sion of..... 338
Forestry statistics, Proposed collection of..... 448
Ford, Worthington C., Review of book by.. 253
Foreman, John, cited on Philippines..... 295
Fort de Kock, Town in Sumatra..... 458
Fowke, Gerard, Acknowledgment to..... 83
French-Canadians, The origin of..... 96
Frye (Mt), Naming of..... 10
Fuller (Mt), Naming of..... 10

Gannett, Henry, Book reviews by... 71, 72, 256
—; Captain Charles D. Sigsbee, U. S. N..... 250
—; Geographic work of the general government..... 329
—; Lake Chelan..... 417
—; Our foreign trade..... 27
—, Record of lecture by..... 104
—; The forest conditions and standing timber of the state of Washington..... 410
Gannett, S. S., Reference to work of..... 98
—, Surveyor of Bitter Root forest reserve. 389
Garland, Hamlin; Overland routes to the Klondike..... 113
Geodetic Survey (Coast and), Work of..... 335
Geographic development, Definition of..... 318
— education, American; W J McGee..... 305
— literature..... 29, 71, 191, 253, 477, 512
— names in West Greenland; Ralph S. Tarr..... 103
— notes,..... 32, 72, 448, 480
— serials..... 256
— work, Bureaus and departments..... 329
Geology of Alaska..... 139
— — Cuba..... 194
Geological Survey, Annual reports of..... 331
— —, Division of hydrography of..... 332
— —, Division of statistics of..... 332
— —, Forest division of..... 332
— —, Maps of..... 330
— —, Work of..... 330
— —, — — in subdivision of Indian Territory..... 487
Geospheres, The; W J McGee..... 435
Gilbert, G. K., editor of Pueblo Folio..... 341
—; Origin of the physical features of the United States..... 308
—, Record of lectures by..... 104, 376
Gill bay, Naming of..... 11
Gilman, Daniel C., Memorial to President Hubbard by..... 57
Glaciation of Greenland..... 5
Glaciers, Features of..... 418
Glave, E. J., Explorations by..... 112
Goode, Richard U.; Bitter Root forest reserve..... 387
—, Record of lecture by..... 104
—; The height of Mt Rainier..... 97
Goodrich, H. B., Exploration by..... 141
Goldfields of Alaska..... 117
— in Alaska..... 162
Gomez and the New York gulf; L. D. Seisco..... 371
Gore, Mrs J. H., Record of lecture by..... 375
Government, Geographic work of; Henry Gannett..... 329
Great plains, Features of the..... 495
Greely, A. W., Book review by..... 191
—, cited on Arctic exploration..... 1
—; Climatic conditions of Alaska..... 132
—, Memorial to President Hubbard by..... 68
—; The Samoan cocoanut..... 12
Greenland, Ancient dwellings of..... 73
—, Aryanization of people of..... 9
—, Fauna of..... 5
—, Flora of..... 4

Page

GREENLAND, Geographic names in..... 103
—, Glaciation of..... 5
—, (West), Three weeks in Hubbard bay; Robert Stein..... 1
GROSVENOR, E. A., Record of lecture by..... 32
GUADALUPE HIDALGO, Treaty of, referred to. 378
GUDMUNDSSON, VALTÝR, Norse researches by..... 73
GUNN, JAMES, Record of address by..... 104

HACKBUSCH, H. S., Surveyor of Bitter Root forest reserve..... 389
HALLOCK, CHARLES, cited on geographic names..... 190
—; Two hundred miles up the Kuskokwim..... 85
HAMLIN, T. S.; Gardiner Greene Hubbard. 33
HARAU GORGE, Description of..... 460
HARBORS of the Philippines..... 274
—, Natural..... 315
HARRISSE, H., Author of "Discovery of North America"..... 371
HARPER STRAIT, Naming of..... 10
HART, JOHN S., Reference to career of..... 214
HARRIS BAY, Naming of..... 10
HAWLEY STRAIT, Naming of..... 10
HAYDEN, EVERETT, Resignation of, as secretary..... 70
HAYES, C. WILLARD, Explorations by..... 112, 140, 159
HAYTI, Birds of..... 245
HAZEN, H. A., cited on temperature of the Philippine islands..... 262
HAZEN, W. H., Reference to work of..... 132
HEARST GLACIER, Naming of..... 10
HEDIN, SVEN, recipient of Founders' medal 342
HEILPRIN, ANGELO, Record of lecture by... 376
HENDERSON BAY, Naming of..... 10
HENRY, A. J., Meteorologic works by..... 136
HERMANN, B., Review of book by..... 477
HIGH PLAINS, Cloud scenery of the; W. D. Johnson..... 492
HILDER, F. F.; The Philippine islands..... 257
—, Record of lectures by..... 375, 414
HILL, ROBERT T., Book review by..... 518
—, Cuba..... 193
—, Record of lecture by..... 519
—, Review of book by..... 512
HODGE, F. W., Record of paper by..... 32
HOLMES, W. H., Record of lecture by..... 32
HOLT, GEORGE, Explorations by..... 108
HORSFORD, CORNELIA; Dwellings of the Saga-time in Greenland, Iceland, and Vineland..... 73
HOUGH, WALTER, Record of paper by..... 32
HOWE, CHARLES K.; The disposition of the Philippines..... 304
HOYT ISLAND, Naming of..... 10
HUBBARD, GARDINER GREENE; Teunis S. Hamlin..... 33
—, Acknowledgment to..... 1
—, Memorial meeting..... 39
—, Portrait of..... 33
HUBBARD BAY, Naming of..... 11
— —, Three weeks in..... 1
HUDSON'S BAY COMPANY, Work of..... 107
HUNTON STRAIT, Naming of..... 10
HYDE, G. E., Reference to work of..... 98
HYDE, JOHN; American Association for the Advancement of Science..... 412
—; An interesting rumor concerning Andrée..... 102
—, Book reviews by..... 192, 253, 514
—; Commerce of the Philippine islands.. 301
—; Frederic W. Putnam..... 429
—; President Alexander Graham Bell on Japan..... 509
—; Reception to Capt. C. D. Sigsbee, U. S. N..... 251
—; Trade of the United States with Cuba. 247

Page

HYDE, JOHN; Wellman Polar expedition... 373
HYDROGRAPHY, Work of division of..... 332
HYDROSPHERE, Definition of..... 436

ICELAND, Ancient dwellings of..... 73
INDIANS of Alaska..... 105
INDIAN TERRITORY, Dwellings of..... 481
— —, Subdivision of..... 487
— —, Survey of (Five civilized tribes and) 481
INGERSOLL, ERNEST, Review of book by..... 192
INGRAHAM, E. S., Expedition by..... 93
—, Reference to work of..... 98
INTERCONTINENTAL RAILWAY COMMISSION, Work of..... 338
ISLE OF PINES, Description of..... 241
ITAMBÉ, The peak of; James A. Shipton... 476

JACKSON, SHELDON, Review of book by..... 192
—, cited on Alaskan agriculture..... 189
—, Reference to work in Alaska of..... 178
—, Record of lecture by..... 31
JAMAICA, Birds of..... 245
JAPAN, President Bell on; John Hyde..... 509
JARVIS, D. H., Record of lecture by..... 519
JEFFERSON ISLAND, Naming of..... 10
JEFFERSON, MARK S. W.; Atlantic estuarine tides..... 400
—; What is the tide of the open Atlantic? 465
—; Atlantic coast tides..... 497
JOHNSON, WILLARD D.; Cloud scenery of the High Plains..... 493
—, Reference to work of..... 99
JORDAN ISLAND, Naming of..... 11

KALLSTENIUS (Mt), Naming of..... 11
KASSON (Cape), Naming of..... 11
KETCHUM, FRANK, Pioneering by..... 137
KILLIN, BENTON, Review of book by..... 192
—, Reference to work in Alaska of..... 178
KLONDIKE, Overland routes to the; Hamlin Garland..... 113
—, Routes to the..... 146
KOTA RADJA, town in Sumatra, Description of..... 463
KRAUSE, the Doctors, Explorations by..... 110
KUSKOKWIM, Two hundred miles up the; Charles Hallock..... 85
KYLE ISLAND, Naming of..... 11

LA BOCA DOCK, Completion of the..... 84
LAFAYETTE formation, Features of..... 321
LAKE CHELAN; Henry Gannett..... 417
LAKE PROVINCE, Geological formation of... 314
LANGLEY, S. P., Acknowledgment to..... 1
—, Tribute to President Hubbard by..... 43
LANGLEY (Mt), Naming of..... 11
LAND OFFICE, General, Work of..... 335
LAPLACE, P. S., cited on tides..... 468
LATHROP, BARBOUR; Fellow-traveler with D. G. Fairchild..... 451
LAWS, Cuban..... 239
—, Mining..... 176
LEBARGE, MIKE, Pioneering by..... 137
LEGASPI, MIGUEL DE, Conquest of Philippines by..... 281
LEMOINE, SIR JAMES, Acknowledgment to.. 84
L'ENFANT, PIERRE CHARLES, Plans for National Capital of..... 326
LEWIS AND CLARKE EXPEDITION, A relic of the; Cyrus C. Babb..... 106
LIGHT-HOUSE establishment, Work of..... 335
LIPPINCOTT, J. B., Surveyor of Bitter Root forest reserve..... 389
LITHOSPHERE, Definition of..... 437
LOUISIANA purchase and our title west of Rocky mountains..... 477
— —, Reference to..... 377

Page

LUIGI, PRINCE AMADEO, Ascent of Aguille Sans Nom by ... 448
—, Mt St Elias expedition of ... 93

McALLISTER, E. H., Reference to work of .. 98
McCONNELL, R. G., Exploration by ... 140
McCLURE, EDGAR, Reference to work of .... 97
McGEE, W J, Acknowledgment to ... 84
—; American geographic education ... 305
—, Book reviews by ... 26, 477, 512, 515
—; Geographic development of the District of Columbia ... 317
—; Geographic work of the Bureau of American Ethnology ... 98
—; Geologic atlas of the United States ... 339
—; Papagueria ... 345
—, Record of lectures by ... 376, 414
—, Referred to ... 99
—; The geospheres ... 435
—; The growth of the United States ... 377
—; The modern Mississippi problem ... 24
—; Topographic atlas of the United States 343
McGEE (Mt), Naming of ... 11
McKIM, R. H., Record of lecture by ... 375
McKINLEY, PRESIDENT; Action in reference to Bitter Root forest reserve ... 388
—, Tribute to President Hubbard by ... 40
MADAGASCAR, Notes on ... 72
MADISON ISLAND, Naming of ... 10
MAGELHAES, FERNANDO DE, Discovery of Philippines by ... 281
MANILA, Location of ... 257
MARINE, Mercantile, of the world ... 480
MANUFACTURES of the Philippines ... 271
METEOROLOGY, Alaskan ... 132
— of Cuba ... 209
— — the Philippines ... 62
MERCANTILE marine of the world ... 480
MESA VERDE; F. H. Newell ... 431
METLAKATLA mission (The) in danger; William H. Dall ... 187
MEXICO, Review of book on ... 191
MINERALS of Alaska ... 139
— — Cuba ... 215
— — the Philippines ... 270
MISSISSIPPI problem, Modern; W J McGee .. 24
MISSOURI RIVER COMMISSION, Work of ... 336
MITCHELL, HENRY, cited on tides ... 474, 503
MONROE DOCTRINE, Geographical aspects of .. 476
MOORE, W. L., Work of, referred to ... 26
MORRILL, PARK, Review of book by ... 26
MT RAINIER, The height of; Richard U. Goode ... 97
MT ST ELIAS (The) expedition of Prince Luigi Amadeo of Savoy, 1897; Eliza Ruhamah Scidmore ... 93
MULHALL estimates of national wealth ... 383
MULLIGAN, JAMES H., Report on the Samoan cocoanut by ... 12
MURDOCH, JOHN; On Eskimo geographic names ending in miut ... 190
MYER, A. J., Reference to work of ... 139

NAMES, Application of geographic ... 10
—, Eskimo geographic ... 190
—, geographic, in West Greenland; R. S. Tarr ... 103
NATIONAL CAPITAL, Historical development of; Marcus Baker ... 323
— development, Factors of ... 384
— Educational Association, Meeting of .... 305
— University, Advocates of ... 10
— Zoölogical Park ... 333
NELSON, E. W., Meteorological work by ... 135
—; Notes on the wild fowl and game animals of Alaska ... 121
NEPTUNIAN rocks, Definition of ... 309
NEWCOMB, H. T., Book reviews by ... 29, 253
—, Review of book by ... 514

Page

NEWCOMB (Cape), Naming of ... 11
NEWELL, F. H., Election of, as secretary of National Geographic Society ... 70
—; Mesa Verde ... 431
—, Record of lecture by ... 376
NORDENSKIOLD, N. A. EDE, Book of, quoted. 431
NORRIS, F. W., Acknowledgment to ... 84
NORSE discoveries ... 73

OGILVIE, WILLIAM, cited on area of Yukon .. 178
—, Exploration by ... 140
—, Reference to work of ... 112, 136
OPERTI (Mt), Naming of ... 11
OREGON TERRITORY, Acquisition of ... 377
OVIEDO quoted in reference to Chaves map ... 372

PAPAGO INDIANS, Characteristics of ... 254
PAPAGUERIA; W J McGee ... 345
PATRONS' MEDAL awarded to R. E Peary ... 342
PAYER, JULIUS VON, cited on Arctic exploration ... 1
PEARY, R. E., cited on Arctic exploration .. 1
—, recipient of Patrons' medal ... 342
PECK, ANNIE S., Record of lecture by ... 376
PEPPER (Mt), Naming of ... 11
PERKINS, GEORGE C.; The civil government of Alaska ... 172
PHILIPPINE ISLANDS (The); F. F. Hilder ... 257
— —, Commerce of ... 301
— —, Ethnology of ... 264
— —, Government in ... 282
— —, Harbors of ... 274
— —, History of ... 281
— —, Manufactures of ... 271
— —, Meteorology of ... 62
— —, Minerals of ... 270
— —, Population of ... 278
— —, The disposition of; Charles F. Howe. 304
PHILIPPINE TRIBES; Notes on some primitive; Dean C. Worcester ... 284
PICTET, RAOUL, Reference to experiments in liquefaction of gases by ... 440
PIMAN stock of Indians ... 347
PIEDMONT PROVINCE, Geological formation of ... 317
PINCHOT, GIFFORD, Record of lecture by ... 376
PLUTONIC ROCKS, Definition of ... 309
POLAR EXPEDITION ... 102, 373
POMOLOGY, Work of division of ... 338
PORTER ISLAND, Naming of ... 11
POTOMAC RIVER, Influence on District of Columbia of ... 319
PORTO RICO, Birds of ... 245
POWELL, J. W., Acknowledgment to ... 1
—, Memorial to President Hubbard by ... 59
—, Reference to explorations by ... 98
—, Referred to as an educator ... 435
—, Work of, in Geological Survey ... 340
POWELL (Mt), Naming of ... 11
PRIEST, W. E., Record of lecture by ... 519
PRITCHETT, H. S., Surveyor of Bitter Root forest reserve ... 389
PROCTER, J. R., Record of lecture by ... 375
PROCTOR STRAIT, Naming of ... 11
PUEBLO quadrangle, Description of ... 341
— folio, Referred to ... 341
PURI, HIRA SINGH, Record of lecture by ... 375
PUTNAM, FREDERIC W.; John Hyde ... 429
—, Portrait of ... 417
PSYCHOSPHERE, Definition of ... 447

RAILWAYS, Review of book on ... 253
RAY, P. H., Meteorological works by ... 134
RAYMOND, C. W., Exploration by ... 140
RECEPTION to Captain Sigsbee; John Hyde. 251
RICHARDSON ISLAND, Naming of ... 11
RIDPATH ISLAND, Naming of ... 11

Page

Rizer, H. C., Record of address by..... 414
Robertson, John M., Record of lecture by. 104
Rocks, neptunian, Definition of..... 309
—, plutonic, Definition of..... 309
Romero, Matias, Review of book by..... 191
Ross, John W., Memorial to President Hubbard by ..... 66
Routes to the Klondike..... 113, 146
Royce, Josiah, Record of lecture by..... 414
Russell, Israel C., Exploration by..... 140
—, Record of lecture by..... 376
—, Review of book by..... 518
—, Work of, cited..... 93
Ryder, C. H., Exploration in Greenland... 2
Ryder (Mt), Naming of..... 11

Saga-time (dwellings of the) in Iceland, Greenland, and Vineland; Cornelia Horsford ..... 73
Samoan cocoanut (The); A. W. Greely..... 12
Samoa, Notes on..... 12
San Domingo, Birds of..... 245
San Xavier, Reservation of..... 347
Schrader, F. C., Exploration by..... 141
Schwatka, Frederick, Explorations by.... 110
Scidmore, Eliza R., quoted on Java..... 449
—; The northwest passes to the Yukon.... 105
—; The Mt St Elias expedition of Prince Luigi Amadeo, 1897..... 93
Scisco, L. D.; Gomez and the New York gulf ..... 371
Sella, Vittorio, Expedition by..... 93
Sherman strait, Naming of..... 11
Shipton, James A.; The peak of Itambé.... 476
Sigsbee, Captain Charles D.; Henry Gannett..... 250
—, Reception to; John Hyde..... 251
—, Portrait of..... 193
—, Letter from President Bell to..... 251
Skagway cañon, Picture of..... 109
Smithsonian Institution and its dependencies, Work of..... 333
Spofford, A. R.; Memorial to President Hubbard by..... 63
Sprague, E. K., Record of lecture by..... 32
Spurr, J. E., Exploration by..... 141
—, cited on gold rocks of Yukon..... 162
State (The); Elements of historical and practical politics..... 478
State of Washington, Forest conditions and standing timber of the; Henry Gannett ..... 410
Stehekin river; Description of gorges along ..... 424
Stein, Robert, Reference to the work of... 103
—; Three weeks in Hubbard bay, West Greenland..... 1
Sternberg, George M., Memorial to President Hubbard by..... 41
—, Record of lectures by ..... 70
Strauss glacier, Naming of..... 11
Sugar consumption by countries of Europe ..... 448
Sulte, B., Abstract of paper by..... 96
Sumatra, Features of..... 449
Sumatra's west coast; David G. Fairchild.. 449
Sunworship, Zuñi..... 308
Switzerland, Notes on..... 72

Tanner, Z. L., Record of lecture by ..... 375
Tarr bay, Naming of..... 11
Tarr, Ralph S.; Geographic names in West Greenland..... 103
Taylor, R. S., Record of lecture by ..... 375
Temperature of the earth, Definition of... 443
Thayer, H. O., Acknowledgment to..... 84
Tides, Atlantic coast ..... 497
—, Atlantic estuarine ..... 400
—, Chesapeake..... 402

Page

Tides of the open Atlantic ..... 465
—, Theory of..... 466
Topographic atlas of the United States; W J McGee..... 343
Trade, Cuban..... 247
—, Our foreign; Henry Gannett ..... 27
Tripler, C. E., Reference to work of ..... 440
True, F. W., Acknowledgment to..... 121
Tuttle, C. R., Review of book by..... 192

United States, Climatic conditions of the.. 316
— —, Geologic atlas of the; W J McGee... 339
— —, Growth of the; W J McGee..... 377
— — National Museum..... 333
— —, Origin of the physical features of the; G. K. Gilbert..... 308
— —, Topographic atlas of the; W J McGee 343
—, Trade of, with Cuba; John Hyde..... 247

Van Hise, C. R., cited on geospheres..... 443
Vilas (Mt), Naming of..... 11
Vineland, Ancient dwellings of..... 73

Walcott, C. D., Acknowledgment to..... 1
—, Work of, in Geological Survey..... 340
Wallace, A. R., cited on Cuban birds..... 246
Ward, H. Snowden, Record of lecture by.. 70
Washington city, Naming of..... 326
— island, Naming of..... 10
—, Forest conditions and standing timber of the State of; Henry Gannett..... 410
Waterfalls, Batang-Harau ..... 460
Water, Definition of..... 436
Weather Bureau, Work of..... 26, 337
Webster, Harrie, Record of lecture by.... 519
Wellman Polar expedition; John Hyde... 373
— — —, Committee of advisers on..... 374
West India bird life, The origin of; Frank M. Chapman..... 243
West Indies, Fauna of..... 243
Wheeler, George M., Surveys and explorations of the West by..... 337
Whewell, William, quoted on tides..... 469
White, Andrew D., Tribute to President Hubbard by..... 40
White island, Naming of..... 11
White pass, Description of..... 147
White, Thomas, Naming of pass after..... 112
Whitman, B. L., Memorial to President Hubbard by ..... 50
Whitney, Milton, quoted on soils of Alaska..... 179
Whymper, Frederick, Exploration by..... 137
Willis, Bailey, Record of lecture by..... 375
Willoughby, C. C., Acknowledgment to.... 84
Wilson strait, Naming of..... 11
Wilson, William L., Memorial to President Hubbard by..... 43
Wilson, Woodrow, Review of book by ..... 478
Wood, C. E. S., Explorations by..... 108
Woodward, R. S., cited on geospheres..... 438
Worcester, Dean C.; Notes on some primitive Philippine tribes..... 284
—, Review of book by ..... 515
Wright (Lake), Naming of..... 11

Yale, Caroline, Memorial to President Hubbard by..... 46
Young, Thomas, cited on tides..... 468
Yukon gold fields, Future of the; William H. Dall..... 117
— river, Description of..... 143
—, The northwest passes to the; Eliza R. Scidmore..... 105
— valley, Agriculture in..... 189

Zuñi sunworship, Reference to .. ..... 308

# THE
# NATIONAL GEOGRAPHIC
# MAGAZINE

AN ILLUSTRATED MONTHLY

EDITOR: JOHN HYDE

ASSOCIATE EDITORS

A. W. GREELY W J McGEE HENRY GANNETT
C. HART MERRIAM ELIZA RUHAMAH SCIDMORE

VOL. IX—YEAR 1898

WASHINGTON
THE NATIONAL GEOGRAPHIC SOCIETY
1898

WASHINGTON, D. C.
JUDD & DETWEILER PRINTERS
1898

# CONTENTS


| | Page |
|---|---|
| Three Weeks in Hubbard Bay, West Greenland; by Robert Stein. | 1 |
| The Samoan Cocoanut; [A. W. Greely] | 12 |
| The Modern Mississippi Problem; by W J McGee | 24 |
| Our Foreign Trade; [Henry Gannett] | 27 |
| The Presidency of the National Geographic Society | 28 |
| Geographic Literature (Eleventh Annual Report of the Interstate Commerce Commission) | 29 |
| Proceedings of the National Geographic Society | 31 |
| Miscellanea | 32 |
| Gardiner Greene Hubbard; by Rev. Teunis S. Hamlin, D. D. | 33 |
| Gardiner Greene Hubbard, Memorial Meeting | 39 |
| Proceedings of the National Geographic Society | 70 |
| Geographic Literature (Stanford's Compendium of Geography and Travel. North America, Vol. I, Canada and Newfoundland, Dawson) | 71 |
| Geographic Notes | 72 |
| Dwellings of the Saga-time in Iceland, Greenland, and Vineland; by Cornelia Horsford | 73 |
| Completion of the La Boca Dock | 84 |
| Two Hundred Miles up the Kuskokwim; by Charles Hallock | 85 |
| The Mt St Elias Expedition of Prince Luigi Amadeo of Savoy; [Eliza Ruhamah Scidmore] | 93 |
| The Origin of the French Canadians | 96 |
| The Height of Mt Rainier; by Richard U. Goode | 97 |
| Geographic Work by the Bureau of American Ethnology; [W J McGee] | 98 |
| A Relic of the Lewis and Clarke Expedition; by Cyrus C. Babb | 100 |
| An Interesting Rumor Concerning Andrée; [John Hyde] | 102 |
| Geographic Names in West Greenland; by Ralph S. Tarr | 103 |
| Proceedings of the National Geographic Society | 104 |
| The Northwest Passes to the Yukon; by Eliza Ruhamah Scidmore | 105 |
| Overland Routes to the Klondike; by Hamlin Garland | 113 |
| The Future of the Yukon Gold Fields; by William H. Dall | 117 |
| Notes on the Wild Fowl and Game Animals of Alaska; by E. W. Nelson | 121 |
| Climatic Conditions of Alaska; by A. W. Greely | 132 |
| A Yukon Pioneer, Mike Lebarge; by William H. Dall | 137 |
| Alaska and its Mineral Resources; by Samuel Franklin Emmons | 139 |
| The Civil Government of Alaska; by George C. Perkins | 172 |
| Some of the Conditions and Possibilities of Agriculture in Alaska; by Walter H. Evans | 178 |
| The Metlakatla Mission in Danger; by William H. Dall | 187 |
| Agriculture in the Yukon Valley; [Sheldon Jackson] | 189 |

Page
On Eskimo Geographic Names Ending in miut; by JOHN MURDOCH. 190
Geographic Literature (Geographical and Statistical Notes on Mexico, Romero; Report to Congress on Agriculture in Alaska, including reports of Evans, Killin and Jackson; Rand, McNally & Co.'s Maps of Alaska; Golden Alaska, Ingersoll; The Golden North, Tuttle) ..... 191
Cuba; by ROBERT T. HILL ..... 193
The Florida Coast Line Canal ..... 242
The Origin of West India Bird Life; by FRANK M. CHAPMAN ..... 243
Trade of the United States with Cuba; [JOHN HYDE] ..... 247
Captain Charles D. Sigsbee, U. S. N.; [HENRY GANNETT] ..... 250
Reception to Captain C. D. Sigsbee, U. S. N.; [JOHN HYDE] ..... 251
Geographic Literature (Rand-McNally War Atlas; Bulletin of Department of Labor, No. 16; Statistical Abstract of the United States, 1897; Ninth Annual Report on the Statistics of Railways in the United States, 1895–1896) ..... 253
Geographic Serials ..... 256
The Philippine Islands; by F. F. HILDER ..... 257
Notes on Some Primitive Philippine Tribes; by DEAN C. WORCESTER. 284
Commerce of the Philippine Islands; [JOHN HYDE] ..... 301
The Disposition of the Philippines; [CHARLES E. HOWE] ..... 304
American Geographic Education; by W J McGEE ..... 305
Origin of the Physical Features of the United States; by G. K. GILBERT ..... 308
Geographic Development of the District of Columbia; by W J McGEE. 317
The Historical Development of the National Capital; by MARCUS BAKER ..... 323
Geographic Work of the General Government; by HENRY GANNETT. 329
The Geologic Atlas of the United States; [W J McGEE] ..... 339
The Topographic Atlas of the United States; [W J McGEE] ..... 343
Papagueria; by W J McGEE ..... 345
Gomez and the New York Gulf; [L. D. SCISCO] ..... 371
Wellman Polar Expedition; [JOHN HYDE] ..... 373
Proceedings of the National Geographic Society ..... 375
The Growth of the United States; by W J McGEE ..... 378
Bitter Root Forest Reserve; by RICHARD U. GOODE ..... 387
Atlantic Estuarine Tides; by MARK S. W. JEFFERSON ..... 400
The Forest Conditions and Standing Timber of the State of Washington; by HENRY GANNETT ..... 410
American Association for the Advancement of Science [JOHN HYDE]. 412
Proceedings of the National Geographic Society ..... 414
Amendments to By-Laws ..... 414
Lake Chelan; by HENRY GANNETT ..... 417
Frederic W. Putnam; [JOHN HYDE] ..... 429
Mesa Verde; by F. H. NEWELL ..... 431
The Geospheres; by W J McGEE ..... 435
Proposed Collection of Forestry Statistics ..... 448
Miscellanea ..... 448

Page
Sumatra's West Coast; by DAVID G. FAIRCHILD ..... 449
What is the Tide of the Open Atlantic? by MARK S. W. JEFFERSON .. 465
The Peak of Itambé ..... 476
Geographic Aspects of the Monroe Doctrine ..... 476
Geographic Literature (The Louisiana Purchase and our Title West of the Rocky Mountains, Hermann; The State, Wilson) ..... 477
Miscellanea ..... 480
The Five Civilized Tribes and the Survey of Indian Territory; by C. H. FITCH ..... 481
Cloud Scenery of the High Plains; by WILLARD D. JOHNSON ..... 493
Atlantic Coast Tides; by MARK S. W. JEFFERSON ..... 497
President Alexander Graham Bell on Japan [JOHN HYDE] ..... 509
Geographic Literature (Cuba and Porto Rico with the Other Islands of the West Indies, R. T. Hill; Railway Economics, Newcomb; The Philippine Islands and Their People, Worcester; Volcanoes of North America, Russell) ..... 512
Proceedings of the National Geographic Society ..... 519

## ILLUSTRATIONS


| | Page |
|---|---|
| View from Hoyt island looking across Hunton strait to Holm island (pl. 1) | 1 |
| Vegetation on south slope of Hoyt island, August 15, 1897 (pl. 1) | 1 |
| Plan of Arctic exploration from a base near Jones sound or at Cape Sabine | 2 |
| Hubbard bay and Alison bay, west Greenland | 3 |
| Crest with bowlders, Hoyt island | 5 |
| Cairn built by Lieut. Ryder in 1887 on Inugsulik island | 6 |
| Soil crack behind ancient Eskimo igloo, Richardson island, Hubbard bay | 8 |
| Eskimo family at Umanak | 9 |
| Gardiner Greene Hubbard (pl. 2) | 33 |
| Alexander Graham Bell (pl. 3) | 73 |
| Supposed birthplace of Leif Erikson | 75 |
| Vertical section of an apartment | 75 |
| Ruin of Pagan temple at Thyrli | 76 |
| Plan of the house of Erik the Red in Haukadale | 77 |
| Ruin of Sámsstadir in Higórsárdalr | 77 |
| Walls of a Norse ruin in Greenland | 79 |
| Plan of a Norse ruin in Greenland | 79 |
| Supposed site of the house of Erik the Red in Greenland | 80 |
| Supposed Norse ruin in Massachusetts | 81 |
| Supposed Norse ruin in Massachusetts | 82 |
| Kuskokwim river from Kolmakovsky | 85 |
| Frames for drying fish | 87 |
| Bidarkas (skin canoes) on the lower Kuskokwim | 88 |
| Mumtrekhlagamute | 89 |
| Kulmakovsky | 90 |
| Eskimo monuments | 92 |
| The gold and coal fields of Alaska (pl. 4) | 105 |
| Chilkoot pass—Yukoners approaching summit | 106 |
| Skagway cañon—Yukoners en route | 109 |
| View from Dalton trail, between Dalton's post and Hootchi lake | 111 |
| View from near Dawson city | 114 |
| Harlequin duck, king eider, spectacled eider, and Steller's eider | 122 |
| Emperor goose | 123 |
| Sea otter | 124 |
| Barren ground caribou | 125 |
| Dall's mountain sheep | 128 |
| Polar bear | 129 |
| Mike Lebarge | 138 |
| View of Eldorado creek, a branch of the Klondike | 144 |
| Summit of White pass | 148 |
| Summit of Chilkoot pass | 151 |
| C. D. Sigsbee, Captain U. S. Navy (pl. 5) | 193 |

Page
Entrance to Habana harbor, looking outward ... 195
Configuration of Cuba ... 197
Elevated north coast of Cuba between Habana and Matanzas ... 198
Coast topography east of Santiago de Cuba ... 200
Geologic section by V. Pellitero across east end of Cuba ... 201
Mountains rising out of central plain, south of Matanzas ... 203
Geologic section across the central limestone plains from Habana to Batabano ... 205
Section at Baracoa ... 206
Geologic map of the island of Cuba ... 207
Mouth of the Yumuri of the east, near Baracoa ... 208
Map of Cuba (pl. 6) ... 209
Avenue of palms on sugar estate, Matanzas ... 210
Typical plain, central Cuba ... 213
Geology of Mata bay, a typical harbor ... 216
Matanzas bay ... 219
Matanzas bay and Yumuri valley ... 221
Baracoa, Cuba, the oldest American city ... 223
Old fortification at entrance of Santiago de Cuba ... 225
Yumuri cañon, back of Matanzas city ... 228
Village between Habana and Matanzas ... 231
Spanish strongholds, Cuba Libre, devastated Cuba, and Cuban outposts ... 234
The Yumuri valley, near Matanzas ... 237
Cape Mayci, eastern point of Cuba ... 242
Outskirts of Manila (pl. 7) ... 257
Map of the Philippine islands ... 258
New cathedral at Manila, with ruined tower of old structure ... 260
Drying sugar at a factory—Island of Luzon ... 266
Girls making cigars ... 268
Native agriculture of Philippine islands ... 269
Chart of Manila bay ... 275
Native village of Albay ... 276
Spanish fortifications near Manila ... 277
The Escolta—main business street of Manila ... 279
Cervantes square, Manila ... 279
Negritos ... 281
Church, convento, and watch tower—Dumaguete, Negros island ... 285
Tagalog house, Mindoro ... 286
Mangyan group, with house—Mt Halcon, Mindoro ... 287
Married Mangyan woman, showing typical costume ... 289
Unmarried Mangyan girls, showing typical costume ... 290
Native sail-boat, mangrove swamp in background ... 291
Mangyan storehouse for grain ... 293
Tagbanua men ... 296
Tagbanua woman and children ... 297
Bisayan native and house ... 299
Old fort, with church inside ... 301
The United States in relief (pl. 8) ... 310

Page
The southern part of the prehistoric Canadian ice-sheet (pl. 9) .... 314
View from "Hole in the Mountain," near Tempe, Arizona (pl. 10).. 345
Cienega: Mexican-Indian village of Papagueria..... 346
Baboquirera peak, seen from Fresnal..... 348
Rio Seco: A typical sandwash of Papagueria..... 351
Coyote: Papago village..... 353
The chief's house, Fresnal..... 359
Typical Papago house..... 362
Poso Verde: Papago village..... 366
Pottery-makers at work in typical bower..... 369
Crest of Bitter Root mountains (pl. 11)..... 377
Diagram illustrating growth of the United States..... 380
Yellow-pine grove..... 390
Cedar forest on Moose creek..... 393
Map of the Bitter Root forest reserve (pl. 12)..... 394
Burnt forest..... 397
Subalpine fir thicket and meadow on Mussel Shell creek..... 399
The Delaware river..... 401
Tidal hours in the Chesapeake..... 403
Diagram of ranges of Chesapeake tides..... 404
F. W. Putnam (pl. 13)..... 417
Map of Lake Chelan and vicinity, State of Washington..... 418
Lake Chelan, at the Narrows..... 420
West side of Horseshoe basin..... 421
Cascade pass and amphitheater..... 422
Gorman falls..... 423
Stehekin valley, at the mouth of Company creek..... 425
Mountains bordering on Lake Chelan..... 427
Typical view from a boat on Lake Chelan..... 428
On the west coast of Sumatra..... 450
Court-house near Padang Pandjang, Sumatra..... 452
Hotel at Padang Pandjang, Sumatra..... 454
Sumatran dwelling-house, showing bamboo wicker-work..... 455
Sumatran bride and groom..... 457
Row of Sumatran houses near Fort de Kock..... 458
Sumatran messigit, or temple, near Pajo Kombo..... 460
Sumatran messigit, or temple, with priest in foreground..... 461
Diagrams illustrating cotidal lines..... 468–471
Diagram of Indian Territory..... 482
A street in South McAlester, Indian Territory..... 484
Indian light-horsemen on scout duty for horse thieves..... 486
Choctaw cabins, Indian Territory..... 489
Camp of a U. S. G. S. surveying party near Ardmore, Indian Territory. 491
Normal appearance of the high plains..... 492
Cloud scenery of the high plains (pl. 14)..... 495
Cloud scenery of the high plains (pl. 15)..... 496
Diagram illustrating Atlantic coast tides..... 498
Cotidals from St Johns, Newfoundland..... 502
Tidal hours from No Mans Land in Long Island sound..... 506